

CLAIMS

1. (Amended) An electric power system comprising a plurality of electric power generator sets, each of the electric power generator sets comprising:

an engine;

a generator driven by the engine;

an inverter having an ability of interconnecting the generator with an external power supply by an inverter and driven by an engine;

means for detecting information concerning electric power from the external power supply and electric power from the electric power generator set;

means for calculating the electric power and energy from the external power supply, the electric power and energy from the power generator set, and the electric power and energy to a load;

means for registering each of the calculated electric powers and energies; and

a control system for controlling output of the generator, wherein the electric power system is constructed by interconnecting the control systems with each other, and one of the control systems serving as a master unit comprises means for accumulating information of generated power required of the other power generator set, the information being transmitted from the control system of the other power generator set, calculating the load electric power of the system, and determining the number of the power generators to be operated.

2. (Amended) The system comprising the power generator sets as set forth in claim 1, wherein each of the power generator sets comprises:

image-displaying means for displaying a diagram of each of the electric energies of the external power supply, the power generator and a load.

3. (Amended) The system comprising the power generator sets as set forth in claim 1, wherein each of the power generator sets comprises:

means for calculating fuel consumption of the engine, and
image-displaying means for displaying each of the electric energies and the fuel consumption in a table.

4. (Amended) The system comprising the power generator sets as set forth in claim 1, wherein each of the power generator sets comprises:

means for externally transmitting the calculated result.

5. (Amended) The system comprising the power generator sets as set forth in claim 1, the power generator sets being connected in parallel, wherein each of the power generator sets comprises:

means for controlling its own generator and inverter cooperatively, and

means for detecting current value from the external power supply.

6. (Amended) The system comprising the power generators as set forth in claim 5, wherein the control system of each of the power generator sets comprises:

means for communicating with the control system of the other power generator, and

means for centralized control over the other control system so as to enable the control system to serve as the master unit.

7. (Deleted)

8. The system comprising the power generator sets as set forth in claim 7, wherein the control system set serving as the master unit comprises:

means for controlling the counted power generator sets to be operated so as to equalize their outputs.

9. The system comprising the power generator sets as set forth in claim 7, wherein the control system serving as the master unit comprises:

means for controlling specific one of the counted power generator sets to be operated so as to maximize output thereof.

10. The system comprising the power generator sets as set forth in claim 7, wherein the control system serving as the master unit comprises:

means for recognizing operation/rest state of its own power generator set or the other power generator set and choosing the control system serving as a next master unit.

11. The system comprising the power generator sets as set forth in claim 7, wherein the control system serving as the master unit comprises:

means for shifting the power generator set to be operated at each predetermined period.

12. The system comprising the power generator sets as set forth in claim 7, wherein the control system serving as the master unit comprises:

means for preventing reverse power flow to the external power supply by cooperating with the other control system.

13. (Amended) A system comprising a power generator set further comprising:

an engine;

a generator driven by the engine;

an inverter having an ability of interconnecting the generator with an external power supply by an inverter and driven by an engine;

means for detecting information concerning electric power of each of the external power supply and the power generator set;

means for calculating electric power and energy of each of the external power supply, the power generator and a load;

means for registering each of the calculated powers and electric energies; and

waste heat recovery means for recovering waste heat from the engine so as to generate heat;

means for detecting information concerning heat energy consumed for generating hot water;

means for calculating the heat energy, an amount of the heat energy and energy efficiency;

means for registering the calculated result; and

image-displaying means for displaying each of the electric powers of the external power supply, the power generator and load of the system, the amount of heat energy and the energy efficiency in a table.

14. The system comprising the power generator set as set forth in claim 13, further comprising:

means for calculating fuel consumption for driving the engine; and

image-display means for displaying each of the electric energies, the heat energy and the fuel consumption in a table.

15. The system comprising the power generator set as set forth in claim 13, further comprising:

means for externally transmitting the calculated result.

16. The system comprising the power generator sets as set forth in claim 13, further comprising:

means for remote communication such as to enable the system to be operated remotely.

17. The system comprising the power generator sets as set forth in claim 13, further comprising:

means for detecting abnormality of the system based on the calculated result and informing about the abnormality.

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18. The system comprising the power generator sets as set forth in claim 13, further comprising:

means for minimizing ecological load or power cost based on the calculated result.